

CLAIMS

The invention claimed is:

1. A method of preventing the transmission of sexually transmitted diseases comprising administering to the vagina an amount of a composition containing at least one lectin capable of binding to a pathogenic microorganism or to carbohydrate moieties expressed on the vaginal epithelial cell surface, said lectin being effective to diminish the infective capability of said microorganism, said lectin being dispersed in a biocompatible non-toxic vehicle.

2. The method of claim 1 wherein said disease is selected from the group consisting of gonorrhea, chlamydial infections, lymphogranuloma venereum, syphilis, chancroid, donovanosis, Mycoplasma hominis infections, Mycoplasma genitalium infections, Ureaplasma urealyticum infections, HIV-1 and HIV-2 infections, HTLV-1 infections, herpes simplex virus type 1 and type 2 infections, Epstein-Barr virus infections, infections with human papilloma viruses, molluscum contagiosum, cytomegalovirus infections, viral hepatitis trichomoniasis, and candidiasis.

3. The method of claim 1 wherein a plurality of lectins is administered.

4. The method of claim 1 wherein said sexually transmitted disease is gonorrhea and said lectin is selected from the group consisting of BPA, CPA, CSA, GNA, LAA, LBA, LCH, LEA, MAA, MPA, NPA, PSA, RPA, SBA, STA, sWGA, TKA, VVA, WFA, and WGA.

5. The method of claim 4 wherein a plurality of lectins is administered.

6. The method of claim 1 wherein said sexually transmitted disease is infection with Chlamydia trachomatis and said lectin is selected from the group consisting of ABA, TKA, DSA, WFA, VFA, Jacalin, and MPA.

7. The method of claim 6 wherein a plurality of lectins is administered.
8. The method of claim 1 wherein said sexually transmitted disease is infection with HIV-1 or HIV-2 and said lectin is selected from the group consisting of ConA, EEA, MPA and HAA.
9. The method of claim 8 wherein a plurality of lectins is administered.
10. A method of contraception comprising administering to the vagina an amount of a composition containing at least one lectin capable of agglutinating sperm or other components of male ejaculate sufficient to render said sperm incapable of fertilization, said lectin being dispersed in a biocompatible non-toxic vehicle.
11. The method of claim 10 wherein a plurality of lectins is administered.
12. The method of claim 10 wherein said lectin is selected from the group consisting of WGA, LcH, PSA, Jacalin, ConA, WFA, MPA, sWGA, RPA, DSA, BPA, CAA, GNA, VRA, VFA, LOTUS, VVA, TKA, LAA, ABA, CSA, UEA-1, PNA, PTAgalNac, PTAgalactose, and EEA.
13. The method of claim 12 wherein a plurality of lectins is administered.
14. A method of treating sexually transmitted vaginal infections comprising administering to the vagina an amount of a composition containing at least one lectin capable of binding to a pathogenic microorganism or to carbohydrate moieties expressed on the vaginal epithelial cell surface, said lectin being effective to diminish the infective capability of said microorganism, said lectin being dispersed in a biocompatible non-toxic vehicle.
15. The method of claim 14 wherein a plurality of lectins is administered.

16. The method of claim 14 wherein said sexually transmitted disease is gonorrhea and said lectin is selected from the group consisting of BPA, CPA, CSA, GNA, LAA, LBA, LCH, LEA, MAA, MPA, NPA, PSA, RPA, SBA, STA, sWGA, TKA, VVA, WFA, and WGA.

17. The method of claim 16 wherein a plurality of lectins is administered.

18. The method of claim 14 wherein said sexually transmitted disease is infection with Chlamydia trachomatis and said lectin is selected from the group consisting of ABA, TKA, DSA, WFA, VFA, Jacalin, and MPA.

19. The method of claim 18 wherein a plurality of lectins is administered.

20. The method of claim 14 wherein said sexually transmitted disease is infection with HIV-1 or HIV-2 and said lectin is selected from the group consisting of ConA, EEA, MPA and HAA.

21. The method of claim 20 wherein a plurality of lectins is administered.

22. A vaginal medicator comprising a ring of a flexible resilient material having a central aperture and spanning said central aperture a web of flexible resilient material, at least one of said ring and said web being impregnated with a lectin and being capable of releasing said lectin to a surrounding vaginal environment.

23. The medicator of claim 22 wherein said flexible resilient material is impregnated with a plurality of lectins

24. The medicator of claim 22 wherein said lectin is selected from the group consisting of BPA, CPA, CSA, GNA, LAA, LBA, Lch, LEA, MAA, MPA, NPA, PSA, RPA, SBA, STA, sWGA, TKA, VVA, WFA, WGA, Jacalin, ConA, DSA, CAA, VRA, VFA, LOTUS, VVA, ABA, UEA-1, PNA, PTAgalNac, PTAgalactose, and EEA.

25. The medicator of claim 24 wherein said flexible resilient material is impregnated with a plurality of lectins.

26. The medicator of claim 22 wherein said flexible resilient material is impregnated with a lectin selected from the group consisting of ABA, TKA, DSA, WFA, VFA, Jacalin, and MPA.

27. The medicator of claim 26 wherein said flexible resilient material is impregnated with a plurality of lectins.

28. The medicator of claim 22 wherein said flexible resilient material is impregnated with a lectin selected from the group consisting of ConA, EEA, MPA and HAA.

29. The medicator of claim 28 wherein said flexible resilient material is impregnated with a plurality of lectins.

30. A vaginal medicator comprising a ring of a flexible resilient material having a central aperture and spanning said central aperture a web of flexible resilient material, at least one of said ring and said web being coated with a composition comprising a lectin and a binder therefor, said composition being capable of releasing said lectin to a surrounding vaginal environment.

31. The medicator of claim 30 wherein said coating composition contains a plurality of lectins.

32. The medicator of claim 30 wherein said lectin is selected from the group consisting of BPA, CPA, CSA, GNA, LAA, LBA, LcH, LEA, MAA, MPA, NPA, PSA, RPA, SBA, STA, sWGA, TKA, VVA, WFA, WGA, Jacalin, ConA, DSA, CAA, VRA, VFA, LOTUS, VVA, ABA, UEA-1, PNA, PTAgalNac, PTAgalactose, and EEA.

33. The medicator of claim 32 wherein said flexible resilient material is impregnated with a plurality of lectins.

34. The medicator of claim 30 wherein said lectin is selected from the group consisting of ABA, TKA, DSA, WFA, VFA, Jacalin, and MPA.

35. The medicator of claim 34 wherein said flexible resilient material is impregnated with a plurality of lectins.

36. The medicator of claim 30 wherein said lectin is selected from the group consisting of ConA, EEA, MPA and HAA.

37. The medicator of claim 36 wherein said flexible resilient material is impregnated with a plurality of lectins.

38. The method of claim 1 wherein said vehicle is selected from the group consisting of creams, ointments, foams, suppositories, ovules, lubricants, lotions, oils, and the like.